valuable resource to support practitioners and clinics in addressing this important aspect of being human.

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QUALITY OF LIFE IN ELDERLY/FRAIL PATIENTS WITH GLIOBLASTOMA MULTIFORME: RESULTS OF A RANDOMIZED PHASE III STUDY COMPARING SHORT AND STANDARD COURSE OF RADIOTHERAPY

Elena Fidarova[1], Lucyna Kepka[2], Valery Sinaika[3], Narendra Kumar[4], Juliana Matiello[5], Darejan Lomidze6, Dalenda Hentati[7], Douglas Guedes de Castro[8], Katarzyna Dyttus-Cebulok[9], Deepak Dinakaran[10], Branislav Jeremic[11], Eduardo Rosenblatt[1], Wilson Roa[10]

[1]International Atomic Energy Agency, Vienna, Austria
[2]Warmia & Mazury Oncology Center, Olsztyn, Poland
[3]N.N. Alexandrov National Cancer Centre of Belarus, Minsk, Belarus
[4]Post Graduate Institute of Medical Education and Research, Chandigarh, India
[5]Irmandade da Santa Casa de Misericórdia de Porto Alegre, Porto Alegre, Brazil
[6]High Technology Medical Center, University Clinic, Tbilisi, Georgia
[7]Institut National de Cancer Salah Azaiz, Bab Saadoum, Tunisia
[8]AC Camargo Cancer Center, São Paulo, Brazil
[9] Maria Sklodowska-Curie Memorial Cancer Centre and Institute of Oncology, Warsaw, Poland
[10]Alberta Health Services-CancerControl, Edmonton, AB
[11]Institutski put 4, Sremska Kamenica, Yugoslavia

Purpose: A recently published practice-changing multicentre randomized study demonstrated no difference in overall survival (OS) and progression-free survival (PFS) between a short RT (arm1: 25 Gy in five fractions) and standard RT (arm 2: 40 Gy in 15 fractions) in elderly and/or frail patients with glioblastoma multiforme (GBM). The purpose was to compare study arms for health-related quality of life (HR-QoL).
Methods and Materials: EORTC core questionnaire QLQ-C30 and the brain module QLQ-BN20 were used to assess HR-QoL at baseline prior to RT, four weeks after RT completion and every three months thereafter until the disease progression. QoL scores over time were examined using generalized estimating equation adjusting for the treatment arms.
Results: Of 98 randomized patients, 96 were eligible for QoL analysis. There was no difference in global QoL/main function scales/symptoms (except for insomnia) between arms. Improvement of global QoL, social and physical function, fatigue and insomnia were observed when comparing baseline to four months post-treatment, but only significant for insomnia, favouring arm 2. Difference of ≥ 10 points from baseline to four months was demonstrated for social function and insomnia (arm 1), physical function (both arms) and fatigue (arm 2). Global QoL at baseline was significantly worse for arm 1, but statistically insignificant at one month and four months post-radiotherapy.
Conclusions: There was overall no difference in HR-QoL between the two arms. A trend toward significant difference was seen in social function, insomnia, and global QoL favouring short RT regimen.

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INAPPROPRIATE STAGING EXAMINATIONS IN EARLY STAGE BREAST CANCER: COSTS TO THE QUEBEC GOVERNMENT

Tarek Hijal, Sidratul Rahman, Hatim Al Marzouki, Hanadi Habibullah, Carolyn Freeman, Benoit Gallix
McGill University Health Centre, Montréal, QC

Purpose: Cancer staging, which consists in objectifying the extent of cancer spread, is essential before the initiation of therapy. Staging is often incorrectly performed, with a sizeable portion of patients receiving unnecessary staging tests, which are costly. This study seeks to quantify the cost of such unnecessary tests in patients with early-stage breast cancer in the province of Québec, Canada.
Methods and Materials: All patients diagnosed with breast cancer between 2012 and 2014 and listed in the tumour registry of the McGill University Health Centre, were included in this retrospective study. For each patient with early-stage breast cancer, the type and number of unnecessary staging tests, as per national guideline definitions, was extracted from the medical chart. The cost of each test, from a single payer point of view, was obtained from the Quebec government manuals of payment to physicians and departments. The total cost of unnecessary tests for staging of early-stage breast cancer was derived. Finally, an extrapolation was done to estimate the total cost for the whole province of Québec per year, given the number of diagnoses of breast cancer in that province.
Results: 1845 patients were listed in the tumour registry of the MUHC, 1116 of which were diagnosed with early-stage breast cancer. 82.5% of patients underwent at least one inappropriate staging test, with an average of 2.35 inappropriate tests were performed per patient. Less than 1% of these tests detected metastatic disease. The average theoretical cost of inappropriate staging tests per patient was $235.84, $251.83 and $217.34 for 2012, 2013, and 2014 respectively, with an average total cost to the government of Québec of $830,659.61 per year, and a 10-year cost of $8,306,596.18.
Conclusions: The majority of patients with early-stage breast cancer undergo unnecessary staging tests. In a social system with limited resources, these tests are costly to the single payer Québec government.

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GLOBAL ACCESS TO RADIOTHERAPY FOR CERVICAL CANCER: THE COST OF INACTION

Danielle Rodin[1], Timothy P. Hanna[2], Emily Burger3, Eduardo Zubizarreta[4], Mei Ling Yap[5], Michael Barton[5], Rifat Atun[3], Felicia Knaul[6], Jacob Van Dyk[7], Yolande Lievens[8], Mary Gospodarowicz[9], David Jaffray[9], Michael Milosevic[9]

[1]University of Toronto, Toronto, ON
[2]Cancer Research Institute, Queen's University, Kingston, ON
[3]Harvard T.H. Chan School of Public Health, Boston, MA
[4]International Atomic Energy Agency, Vienna, Austria
[5]University of South Wales, Liverpool, Australia
[6]University of Miami, Miami, FL
[7]University of Western Ontario, London, ON
[8]Ghent University Hospital, Ghent, Belgium
[9]Princess Margaret Cancer Centre, Toronto, ON

Purpose: Radiotherapy (RT) is a highly effective and curative treatment for patients with invasive cervical cancer, and is the standard of care for locally advanced disease. Although RT can be successfully delivered in developing countries, major gaps in access have resulted in substantial preventable morbidity and mortality, where nearly 90% of cervical cancer deaths occur. These gaps are multifactorial, but assumptions about excessive cost of RT in these regions preclude effective implementation. Using methodology developed for the Global Task Force on Radiotherapy for Cancer Control (GTFRCC), we examined the validity of these assumptions for the treatment of cervical cancer with external beam radiation (EBRT) and brachytherapy (BT) in upper middle-income income (UMIC), lower middle-income (LMIC) and low-income countries (LIC).
Methods and Materials: Based on the GTFRCC evidence-based estimation approach, we assumed that 71% of cervical cancer patients would require RT, with a mean of 21 EBRT and three HDR BT fractions per course, resulting in a 20% overall survival benefit. We developed a decision-analytic Markov model to assess three RT capacity scenarios from 2015 to 2035: 1) no increase in capacity; 2) linear scale-up from baseline coverage in 2015 to universal accessibility by 2035; and 3) immediate full availability. Model outcomes included total life years (LYs) and economic productivity (US Dollar). Costs, based on the GTFRCC efficiency model, and benefits were discounted by 3% annually over a lifetime horizon.
Results: If no action is taken to shift current RT capacity to universal accessibility, we project a loss of up to 21.4 million (M)